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FREEPORT-McMoRan COPPER & GOLD

Chino Mines Company
Box 10
Bayard, NM 88023

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October 31, 2011

Certified Mail # 70101670000114199610
Return Receipt Requested

James Davis, Ph.D., Director
New Mexico Environment Department
Resource Protection DivisionP. O. Box 5624
Santa Fe, New Mexico 87502

Dear Dr. Davis:

Re: Chino AOC, Annual Monitoring Report, Groundhog Mine Site
Interim Remedial Action, Hanover Whitewater Creeks Investigative Unit

Freeport-McMoRan Chino Mines Company's (Chino) submits the attached third Annual Monitoring Report for the completed Groundhog Mine Site Interim Remedial Action (IRA) for the monitoring period ending September 30, 2011. The Groundhog Mine Site IRA was performed by Chino pursuant to requirements of the Administrative Order on Consent between the New Mexico Environment Department and Chino. Additional acreage was added to the IRA site with the old pipeline corridor stockpile removal and remediation within the mine site during the first quarter of 2011. The remediation was documented in the Addendum to the Groundhog Mine Site IRA Completion Report dated August 2011.

As per Section 6.0 of the IRA Completion Report dated June 10, 2009, this monitoring report will replace the biannual submittal required pursuant to Chino's corrective action proposal. The proposal, dated October 21, 2004, was submitted to NMED in response to the release of water from the Groundhog Mine Site on August 18, 2004. To meet the requirements of Section 6 of the completion report, the annual report includes the following information:

- Data tabulation sheet of analytical results (high constituent values are highlighted) from monitoring well samples and surface water samples collected at the Groundhog Mine site;
- Copies of the original laboratory data sheets;
- The quarterly erosion surveys; and
- The third annual vegetation monitoring survey.

Additionally, this report includes the requirements under Section 6 of the completion report for the Osceolla, CG Bell, and Tenderfoot B Stockpiles IRA. These three historic mine sites are proximal and have similar requirements as the Groundhog IRA. The following information is also included in the completion report:

- The third annual vegetation survey; and
- Quarterly erosion reports for the three historic small stockpiles are included with the Groundhog Mine Site quarterly monitoring survey.

The groundwater water quality data are for monitor wells GH-2004-2S, GH-2004-2D, and surface water quality from three locations. The surface water sampling locations include the lower stormwater sump and the lower stormwater pond which make up the Groundhog Mine seepage collection system located up gradient of the headwall. One of the three surface water sample sites is the upper stormwater pond

670166

which was removed during the supplemental site remediation in early 2011 as the containment was no longer needed to alleviate subsurface flow through the adjacent stockpile material supporting the old pipeline corridor. This pond was located north of the haul road that divides the Groundhog Mine site. Chino will monitor groundwater and surface water semi-annually for the following suite of analytes: cadmium, calcium, cobalt, copper, fluoride, iron, lead, magnesium, manganese, nickel, lead, zinc, pH, sulfate, and total dissolved solids.

If you require additional information regarding this submittal please contact Mr. Ned Hall at (520) 229-6470.

Sincerely,

for
Timothy E. Eastep, Manager
Environment, Land & Water

TEE:pp
Attachments
20111026-004

xc: Phil Harrigan, NMED
Joe Fox, NMED
Jerry Schoeppner, NMED
Dave Menzie, NMED
Chris Eustice, MMD
Ned Hall, FCX (via email)

TECHNICAL MEMORANDUM

Date:	October 27, 2011	**Project No.:**	103-92704
To:	Pam Pinson	**Company:**	Freeport-McMoRan Chino Mines Company
From:	Douglas Romig, CPSS		
cc:	Ned Hall, Freeport-McMoRan Jen Pepe, Golder Associates, Inc	**Email:**	dromig@golder.com

RE: 2011 VEGETATION INSPECTION OF THE RECLAMATION AT THE GROUNDHOG MINE AND SMALL HISTORIC STOCKPILE SITES

1.0 INTRODUCTION

Freeport McMoRan Chino Mines Company (Chino) completed reclamation of several small waste rock stockpiles in the headwaters of Whitewater Creek in 2004, and the Groundhog Mine site in 2008. This work fulfilled the mitigation requirements under Interim Remedial Actions (IRAs) pursuant to the Chino Administrative Order on Consent (AOC) between Chino and the New Mexico Environment Department (NMED).

The project site is approximately 1-½ miles northeast of Bayard, New Mexico. The Groundhog Mine site is located on the flanks of San Jose Mountain in a small canyon upgradient of Whitewater Creek along the Lake One haul road. Collectively known as the Small Historic Stockpiles, the Osceolla, CG Bell, and Tenderfoot B sites reside along the banks and steep hillsides immediately above Whitewater Creek. The Star Rock Stockpile, located across the Whitewater Creek drainage from the Tenderfoot B, was also included in the annual inspection, although it is not specifically included in an IRA under the AOC. Figure 1 illustrates the general locations of these sites. Reclamation at these five sites included the removal of potentially-reactive stockpile materials and affected soils, closure of mine openings, site regrading, cover placement, and revegetation of the removal and borrow areas. This work was performed as part of the IRAs to reduce mass loading of metals and acidity to groundwater and surface water.

This technical memorandum documents the vegetation inspection for the Groundhog Mine and Small Historic Stockpile reclamation sites for 2011. The sites were inspected to assess the general condition of the reclamation, estimate vegetation cover, and document the plant species that occur. The area was inspected on September 26, 2011 by Mr. Douglas Romig and Ms. Jen Pepe of Golder Associates Inc. (Golder). Also present during the inspection was Ms. Pam Pinson (Chino) and Mr. Phil Harrigan (NMED).

2.0 VEGETATION MONITORING

The vegetation inspection consisted of a foot survey of the reclaimed areas and cover borrow sites to evaluate the progress of plant establishment and determine if the vegetated cover is viable, self-sustaining and capable of supporting the post-mining land use of wildlife habitat and/or grazing.

Golder Associates Inc.
5200 Pasadena Ave NE, Cuite C
Albuquerque, NM 87113
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Golder Associates: Operations in Africa, Asia, Australasia, Europe, North America and South America

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Reclaimed areas were inspected to assess the general condition of the reclamation, estimate vegetation cover, and document observed plant species. A summary of the general conditions at each site is provided below. Photo documentation of the site conditions are provided in the photo log attached to this document. In addition, Table 1 provides a list of plant species identified during the inspections over the past three years at the Groundhog Mine and Small Historic Stockpile sites.

This past winter was very dry and the growing season (July through September) had below normal monsoonal rains. Despite the dry growing season, the vegetation looked in relatively good condition, though standing biomass was less than in previous years.

2.1 Tenderfoot B

The Tenderfoot B site was hand seeded in 2004 by Chino staff and currently supports a diverse and robust plant community (Photo A and B). Average canopy cover was estimated at 75 percent. Shrubs were numerous (150 stems/acre) and at comparable densities to the adjacent native areas. In addition, numerous native forbs have become established. A total of 31 species have been identified in the reclaimed plant community (Table 1). The majority of these species were not in the reclamation seed mix and have been recruited from the native plant community adjacent to the site.

A relatively small rill erosion is present in the reclamation in a midslope position (Photo C). As discussed in last year's inspection report (Golder 2010) there are plants established in the rill suggesting that it is relatively stable. Evidence of some erosion repair work is present upgradient of the rill where the rill has fully healed (Photo D).

2.2 CG Bell

The CG Bell site was also hand seeded in 2004 and vegetation establishment is discontinuous across the site in part due to shallow cover materials over bedrock (Photos E and F). Average canopy cover was estimated at 15 percent across the site and 10 species have been identified in the revegetated plant community (Table 1). The site has been successful at recruiting two native shrub species from adjacent undisturbed areas. Shrub density was estimated at 150 stems/acre which is considered good at this stage of the reclamation. The site has also recruited numerous forb species but does not yet support an understory of grasses.

2.3 Osceolla

The Osceolla site extends from Whitewater Creek along the railroad tracts to an access road to the north. Establishment of vegetation at the Osceolla site is inconsistent across the site. Vegetation is becoming established along the railroad tracks and in the east and west portions of the site. Estimated canopy cover in these areas was 50 percent (Photos G and H). Vegetation in the central portion of the site has been slow to establish. Twelve species were identified in the revegetated plant community (Table 1), the majority of these species were recruited from adjacent undisturbed areas. Shrub density is low, estimated at 50 stems/acre.

2.4 Star Rock Stockpile

This stockpile was characterized in the late 1990's along with the three Small Historic Stockpiles and lab analysis determined that this site did not exceed New Mexico groundwater standards unlike the other 3 historic sites. The Star Rock Stockpile site was covered with local borrow materials in 1997. The area was not seeded and native plants have colonized the site. The plant community is in very good condition with an estimated average canopy cover of 45% and an estimated shrub density of 350 stems/acre (Photos I and J). A total of 18 species were identified in the reclaimed plant community (Table 1).

2.5 Groundhog Mine

After removal of waste rock and cover placement, the Groundhog Mine site was hydroseeded by Freeport McMoRan Reclamation Services in 2008. During December 2010 and the first quarter of 2011, Chino removed additional waste rock that was under the pipeline along the Lake One haul road. Disturbances associated with the waste rock removal were hydroseeded and mulched in the spring of 2011.

Vegetation establishment at the Groundhog Mine site is progressing well based on qualitative assessments of cover, density, and diversity. Across the reclaimed area, average canopy cover was estimated at 50 percent (Photos K through L). These cover values exceed the levels typical for the early establishment phase of reclamation in the region. Numerous established seedlings were observed in the newly seeded area (Photo M).

The Groundhog reclamation has excellent diversity. A total to 46 species that have been identified in the reclaimed area in the past 3 years (Table 1). While some weedy annuals were present in the reclaimed areas, they were not widespread and no noxious weeds were identified. Average shrub density was estimated around 50 stems/acre.

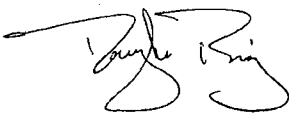
The vegetation in the borrow area at the Groundhog Mine site is generally progressing well (Photo N). Plant cover and density is considered appropriate for this stage in the reclamation. Small areas of localized rill erosion are present in the borrow area, though many of these rills areas appear to initiate in undisturbed areas upgradient of the borrow site and represent the formation of a natural incipient drainage pattern along the lower slopes (Photo O). There is also bedrock control in many of the rills (Photo P) which will halt downcutting.

3.0 SUMMARY AND RECOMMENDATIONS

In general, revegetation efforts have been successful at the Groundhog Mine and Small Historic Stockpile sites and the majority of the reclaimed areas now support robust and diverse plant communities and soil surfaces are stable. Small areas at both the CG Bell and Osceolla sites have had poor seedling establishment and are slow to recruit plant species from adjacent area. That said, the Star Rock Stockpile demonstrates that these types of sites are capable of recruiting volunteer vegetation over the long term.

Golder recommends continued annual qualitative monitoring of the vegetation progress of these areas. When all the sites have achieved cover levels that are considered adequate, Golder will complete a formal quantitative survey of the areas to demonstrate that the vegetation has achieved the success targets consistent with the Vegetation Success Standards of Appendix C in the New Mexico Energy, Minerals and Natural Resources Department, Mining and Minerals Division revision 01-1 to Permit GR009RE.

Sincerely,
GOLDER ASSOCIATES, INC



Douglas Romig, CPSS
Senior Soil Scientist

Attachments: Table 1
Figure 1
Photo Log

TABLE 1
PLANT SPECIES IDENTIFIED ON RECLAIMED AREAS IN 2009 THROUGH 2011 AT THE GROUNDHOG MINE AND WHITEWATER CREEK SMALL HISTORIC STOCKPILE SITES

Scientific Name	Common Name	Tenderfoot B	CG Bell	Osceolla	Star Rock Stockpile	Groundhog Mine
Grasses						
Aristida purpurea	Purple threeawn	X			X	
Aristida schiedeana	Single-awn threeawn	X	X	X	X	X
Bothriochloa barbinodis	Cane bluestem			X	X	X
Bouteloua curtipendula[1]	Sideoats grama	X			X	X
Bouteloua gracilis[1]	Blue grama	X				X
Bouteloua hirusta	Hairy grama	X			X	X
Cyperus sphaerolepis	Rusby's flatsedge	X				X
Elymus lanceolatus[1]	Thickspike wheatgrass					X
Eragrostis curvula[1]	Weeping lovegrass	X				X
Eragrostis intermedia	Plains lovegrass					X
Eragrostis spp.	Lovegrass					X
Hilaria belangeri	Curly mesquite					X
Leptochloa dubia[1]	Green sprangletop	X				X
Panicum obtusum	Vine mesquite	X				X
Schizachyrium scoparium	Little bluestem				X	
Setaria macrostachya	Plains bristlegrass	X		X		X
Sitanion hystrix[1]	Bottlebrush squirreltail					X
Sporobolus cryptandrus[1]	Sand dropseed	X		X	X	X
Forbs						
Artemisia carruthii	Sagewort	X		X		X
Astragalus nuttallii	Nuttall's milkvetch	X				X
Bahia dissecta	Bahia	X			X	X
Chaenactis stevioides	False yarrow	X	X		X	X
Conyza canadensis	Horseweed					X
Dalea candida	White prairie clover					X
Dalea leporina	Foxtail dalea	X				
Datura quercifolia	Oak-leaved thornapple			X		X
Eriogonum wrightii	Bastardsage					X
Evolvulus sericeus	Silver dwarf morning-glory					X
Monardella odoratissima	Horsemint	X				X
Gallardia pinnatifida	Red dome blanketflower					X
Gaura spp.	Beeblossom	X				X
Grindelia squarosa	Curly-cup gumweed					X
Heterotheca villosa	Hairy goldenaster		X			X
Hoffmannseggia glauca	Hog potato					X
Ipommoea cristulata	Scarlet morning glory					X
Linum lewisii[1]	Blue flax					X
Lotus wrightii	Wright's deervetch	X	X			
Mechaeranthera canescens	Purple aster	X			X	X
Melapodium leucanthum	Blackfoot					X
Melilotus officinalis	Yellow sweetclover					X

TABLE 1 (con't)
PLANT SPECIES IDENTIFIED ON RECLAIMED AREAS IN 2009 AND 2010 AT THE GROUNDHOG MINE AND WHITEWATER CREEK SMALL HISTORIC STOCKPILE SITES

Scientific Name	Common Name	Tenderfoot B	CG Bell	Osceolla	Star Rock Stockpile	Groundhog Mine
Forbs (con't)						
Mentzelia multiflora	Blazing star			X		
Mirabilis linearis	Narrowleaf four-o'clock					X
Penstemon spp.[1]	Penstemon	X			X	
Phaseolus angustissimus	Slimleaf limabean	X				
Pseudognaphalium canescens	Gray everlasting	X				
Salsola tragus	Russian thistle					X
Schoenocrambie linearfolia	Slimleaf purple mustard					X
Solanum elaeagnifolium	Silverleaf nightshade	X	X	X		X
Sphearalcea fendleri[1]	Scarlet globemallow	X		X		X
Verbascum thapsus	Common mullen	X	X		X	X
Shrubs and Trees						
Ailanthus altissima	Tree of heaven				X	
Atriplex canescens[1]	Four-wing saltbush	X				
Brickelia californica	California brickellbush	X	X	X	X	X
Chrysothamnus nauseosus	Rubber rabbitbush		X		X	
Fallugia paradoxa	Apache plume					X
Gutierrezia sarothrae	Broom snakeweed	X			X	X
Mimosa biuncifera	Mimosa	X				X
Pinus edulis	Pinyon pine		X			
Quercus emoryi	Emory oak			X		
Senecio douglasii	Douglas' ragwort	X	X	X	X	
Ulmus pumila	Siberian elm				X	

Note: 1 - Species in the reclamation seed mix

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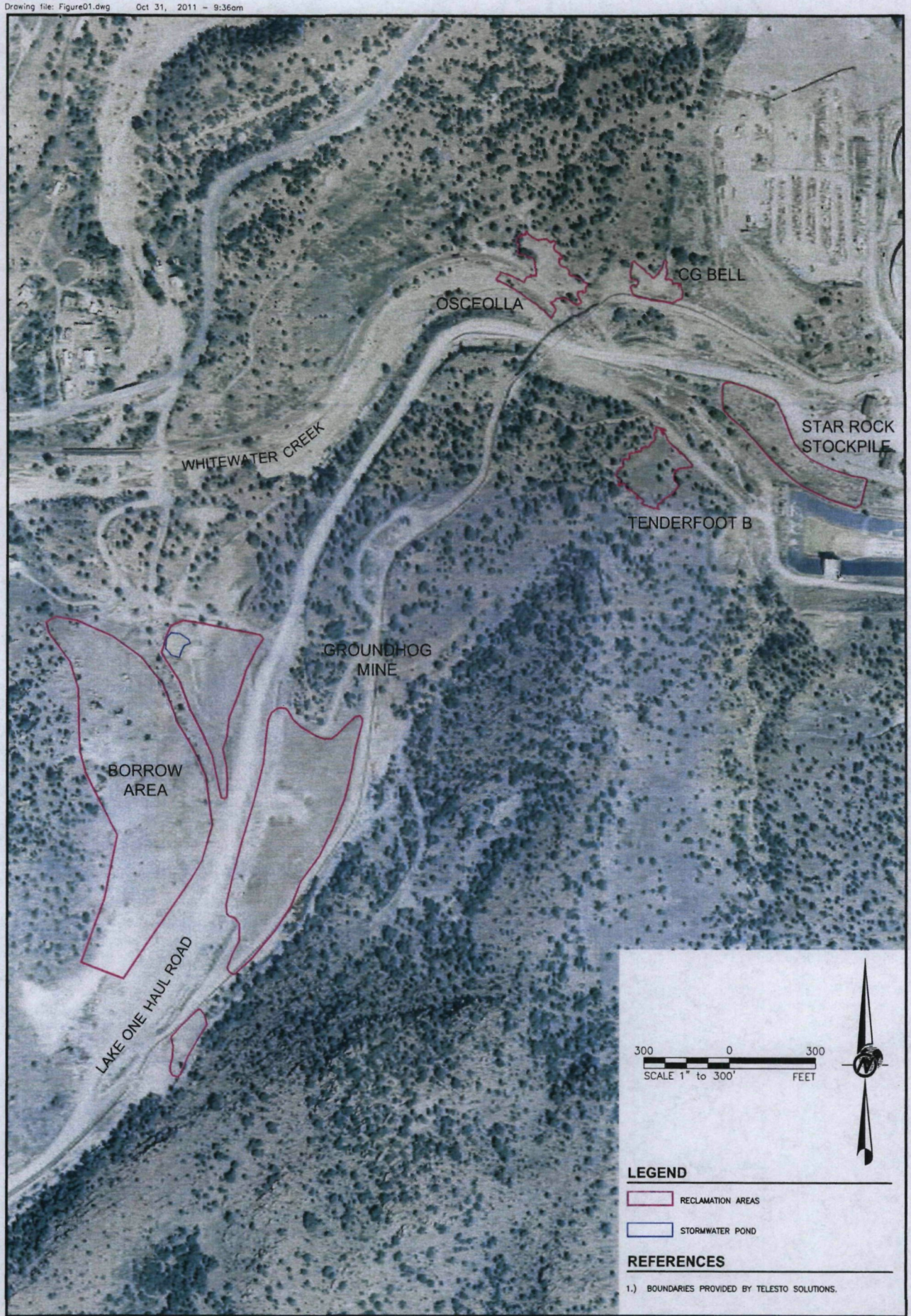

FIGURE 1

REVIEW	DR	10/25/11
CHECK	DR	10/25/11
CADD	CM	10/25/11
DESIGN	DR	10/28/10
REV. 0	SCALE AS SHOWN	
FILE No.	Figure01.dwg	
PROJECT No.	103-92704	

TITLE

OVERVIEW OF 2011 RECLAMATION INSPECTION SITES

PROJECT

FREEPORT-McMoRan COPPER & GOLD
CHINO MINES COMPANY

GROUNDHOG MINE AND SMALL HISTORIC STOCKPILES IRA'S
GRANT COUNTY, NEW MEXICO

Golder Associates
Albuquerque, NM

Attachment 1: Photo Log
Groundhog Mine Site and Small Historic Stockpile Reclamation

Photo A:
Tenderfoot B site looking south

Photo B:
General condition of Tenderfoot B site

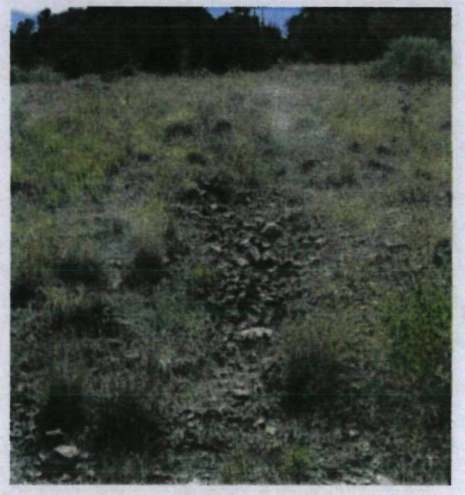

Photo C:
Midslope rill in Tenderfoot B reclamation

Photo D:
Erosion repair upgradient of rill that has fully healed

Attachment 1: Photo Log
Groundhog Mine Site and Small Historic Stockpile Reclamation

Photo E:
West side of CG Bell site

Photo F:
Overview of eastern slope of the CG Bell site

Photo G:
Osceolla site looking west

Photo H:
Osceolla site looking east

Photo I:
Overview of the Star Rock Stockpile

Photo J:
Volunteer vegetation at the Star Rock Stockpile

Photo K:
Overview of the Groundhog site east of the Lake One haul road

Photo L:
Overview of the Groundhog site west of the Lake One haul road

Photo M:
Seeded area following waste rock removal along the Lake One haul road at the Groundhog site

Photo N:
Vegetation in the Groundhog borrow area

Photo O:
Incipient drainage at the base of the Groundhog borrow area associated with slope inflection

Photo P:
Bedrock control of erosion in Groundhog borrow area

Groundhog Mine IRA Annual Report
October 31, 2011

Site Number	Sample ID	Sample Date	Comments	Ca, Diss (mg/L)	Cd, Diss (mg/l)	Co, Diss (mg/l)	Cu, Diss (mg/l)	F, Tot_ (mg/l)	Fe, Diss (mg/l)	Mg, Diss (mg/L)	Mn, Diss (mg/l)	Ni, Diss (mg/l)	Pb, Diss (mg/l)	pH, Field (su)	SO4, Tot_ (mg/l)	TDS (mg/l)	Cond, Fld micromho	Water Temp (Cent)	Zn, Diss (mg/l)	Well Collar Level (ft msl)	Well Depth	Depth to Water (ft)
Water Quality Standard					0.01	0.05	1	1.6	1		0.2	0.2	0.05	6- 9	600	1000			10			
GH-2004-2D	235809	10/28/2004		NA	0.0044	<0.006	0.005	<1	<0.02	NA	0.059	<0.01	<0.005	6.63	**1780**	**2580**	2292	17.3	0.743	6009.67	157.6	62
GH-2004-2D	245863	5/17/2005		NA	0.0027	<0.006	<0.01	<0.5	0.089	NA	**0.374**	<0.01	<0.005	6.76	**1640**	**2440**	2339	17.4	0.654	6003.7	147.6	44.5
GH-2004-2D	270674	10/25/2005		NA	0.0074	<0.006	<0.01	1.03	<0.06	NA	**0.213**	<0.01	0.009	6.62	**1620**	**2530**	2354	17.4	1.65	6003.7	147.6	46.3
GH-2004-2D	276910	3/14/2006		NA	0.0087	<0.006	<0.01	0.2	<0.06	NA	0.129	<0.01	0.009	6.63	**1600**	**2770**	2334	17.2	0.851	6003.7	147.6	47.43
GH-2004-2D	283019	8/4/2006		NA	**0.0119**	<0.006	<0.01	<0.2	<0.06	NA	0.123	<0.01	0.0108	6.58	**1590**	**2620**	2384	17.6	1	6003.7	147.6	50.3
GH-2004-2D	299167	2/6/2007		NA	0.0095	<0.006	<0.01	<0.2	<0.06	NA	0.108	<0.01	0.0091	6.53	**1660**	**2630**	2372	17.3	0.903	6003.7	147.6	43.03
GH-2004-2D	305946	7/23/2007		NA	**0.011**	<0.006	<0.01	<0.5	<0.06	NA	0.09	<0.01	0.011	6.72	**1640**	**2700**	2432	18.1	0.935	6003.7	147.6	43.45
GH-2004-2D	316507	3/25/2008		NA	**0.0105**	<0.006	<0.01	<0.2	<0.06	NA	0.056	<0.01	0.0086	6.79	**1760**	**2700**	2304	17	0.82	6003.7	147.6	44.7
GH-2004-2D	320089	10/28/2008		NA	0.0094	<0.006	<0.01	<0.5	<0.06	NA	0.112	<0.01	0.011	6.63	**1990**	**2700**	2351	17.2	0.866	6003.7	147.6	41.42
GH-2004-2D	321236	03/23/2009		NA	0.0072	<0.006	0.015	0.107	<0.06	NA	**0.254**	<0.01	<0.0075	6.82	**1570**	**2690**	2348	17.2	0.904	6003.7	147.6	44.8
GH-2004-2D	322688	09/30/2009		494	**0.0101**	<0.006	0.016	<0.5	<0.06	121	0.139	<0.01	<0.0075	6.43	**1560**	**2730**	2405	17.8	0.873	6003.7	147.6	48.08
GH-2004-2D	323312	03/11/2010		491	**0.0116**	0.0061	0.013	<0.2	<0.061	118	0.0689	<0.01	0.008	6.77	**1710**	**2680**	2382	16.9	0.838	6003.7	147.6	48.22
GH-2004-2D	324880	09/20/2010		515	**0.0117**	<0.006	<0.01	<0.5	<0.06	125	0.0606	<0.01	0.0108	6.81	**1660**	**2760**	2422	18.7	0.775	6003.7	147.6	44.74
GH-2004-2D	326361	03/02/2011		509	**0.0122**	<0.006	<0.01	<0.5	<0.06	118	0.0703	<0.01	0.0134	6.73	**1620**	**2540**	2367	17.5	0.855	6003.7	147.6	47.99
GH-2004-2D	327872	09/02/2011		489	0.0098	<0.006	0.01	<0.1	<0.06	113	0.0474	<0.01	<0.0075	6.75	**1640**	**2660**	2416	18.9	0.782	6003.7	147.6	50.32
GH-2004-2S	236057	10/28/2004		NA	**0.0153**	<0.006	0.007	0.31	<0.02	NA	**0.703**	<0.01	<0.005	7.07	**1460**	**2120**	2019	17	2.15	6009.67	**	53.25
GH-2004-2S	245864	5/17/2005		NA	0.0029	<0.006	0.014	<0.5	<0.06	NA	0.083	<0.01	<0.005	7.39	**1360**	**2080**	2046	17.4	0.371	6003.7	83	46.73
GH-2004-2S	270675	10/25/2005		NA	0.0026	<0.006	<0.01	1.02	<0.06	NA	0.032	<0.01	<0.0075	6.99	**1390**	**2160**	2152	17.3	0.421	6003.7	83	40.16
GH-2004-2S	276911	3/14/2006		NA	0.0027	<0.006	<0.01	0.73	<0.06	NA	0.022	<0.01	<0.008	7.26	**1410**	**2240**	2204	17.1	0.291	6003.7	83	40.64
GH-2004-2S	283020	8/4/2006		NA	0.0027	<0.006	<0.01	<0.2	<0.06	NA	0.011	<0.01	<0.0075	7.27	**1390**	**2240**	2203	17.8	0.359	6003.7	83	43.84
GH-2004-2S	299168	2/6/2007		NA	0.0031	0.01	0.111	1.16	<0.06	NA	**0.564**	<0.01	<0.0075	6.53	**1410**	**2220**	2142	17.4	0.557	6003.7	83	37.08
GH-2004-2S	305947	7/23/2007		NA	<0.002	<0.006	<0.01	<0.5	<0.06	NA	<0.004	<0.01	<0.008	7.03	**1440**	**2300**	2279	17.7	0.226	6003.7	83	36.89
GH-2004-2S	316508	3/25/2008		NA	0.0052	<0.006	0.065	<0.5	0.092	NA	**0.389**	<0.01	<0.0075	7.23	**1970**	**3000**	2648	16.3	1.36	6003.7	83	37.75
GH-2004-2S	320090	10/28/2008		NA	0.0022	<0.006	0.011	<0.5	<0.06	NA	0.0547	<0.01	<0.0075	7.07	**1870**	**2900**	2650	17.8	0.318	6003.7	83	59.59
GH-2004-2S	321237	03/23/2009		NA	0.0068	<0.006	0.051	<0.1	<0.06	NA	**0.916**	<0.01	<0.0075	7.02	**1720**	**2810**	2554	16.9	1.63	6003.7	83	37.27
GH-2004-2S	322689	09/30/2009		468	**0.0286**	<0.006	0.072	0.995	<0.06	137	**3.42**	0.031	<0.0075	6.73	**1850**	**3170**	2845	17.3	5.91	6003.7	83	39.47
GH-2004-2S	323313	03/11/2010		539	**0.0906**	0.0114	0.768	1.48	<0.061	172	**12**	0.026	<0.0076	6.62	**2520**	**3620**	2639	15.7	**21**	6003.7	83	40.25
GH-2004-2S	324881	09/20/2010		619	**0.115**	<0.006	0.019	<1	<0.06	200	**6.43**	0.036	<0.0075	6.69	**2450**	**3820**	3318	18.2	**21.5**	6003.7	83	37.33
GH-2004-2S	326362	03/02/2011		563	**0.111**	<0.006	0.012	0.858	<0.06	181	**5.52**	0.036	<0.0075	6.6	**2220**	**3550**	3102	17.1	**23**	6003.7	83	42.2
GH-2004-2S	327873	09/02/2011		527	**0.0748**	<0.006	0.032	<0.5	<0.06	167	**1.13**	0.016	<0.0075	6.65	**2150**	**3380**	3023	18.8	**18**	6003.7	83	42.57
Lower GH-Sump*	250151	4/14/2005		NA	**2.31**	**1.11**	**95.1**	**6.04**	0.28	NA	**333**	**0.846**	**1.24**	**3.92**	**5530**	**9220**	5550	17.7	**844**	surface	surface	surface
Lower GH-Sump*	267561	9/26/2005		NA	**0.749**	**0.307**	**20.2**	**1.32**	<0.3	NA	**95.3**	0.178	**0.289**	**4.05**	**2870**	**4450**	3643	23.6	**224**	surface	surface	surface
Lower GH-Sump*	283021	8/4/2006		NA	**0.35**	**0.147**	**9.11**	1.08	0.15	NA	**44**	0.086	**0.0815**	**5.27**	**1530**	**2390**	2298	22.6	**92**	surface	surface	surface
Lower GH-Sump*	305948	7/23/2007		NA	**0.299**	**0.15**	**7.19**	1.15	<0.06	NA	**52.8**	0.097	**0.078**	**5.64**	**1600**	**2600**	2314	22.8	**76.8**	surface	surface	surface
Lower GH-Sump*	316509	3/25/2008	Dry	NA	NS	NS	NS	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	surface	surface	surface
Lower GH-Sump*	320091	10/28/2008		NA	**0.0725**	<0.006	0.227	0.825	<0.06	NA	**6.43**	0.019	<0.0075	6.93	**1890**	**2400**	1970	15.8	**18**	surface	surface	surface
Lower GH-Sump*	321238	03/23/2009	Dry	NA	NS	NS	NS	NS	NS	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	surface	surface	surface
Lower GH-Sump	322691	09/30/2009		111	0.0028	<0.006	0.03	1.02	<0.06	18.1	0.124	<0.01	<0.0075	7.35	329	536	645	18	0.55	surface	surface	surface
GH-Sump	323315	03/10/2010		279	**0.0149**	0.0061	0.04	1.08	<0.061	44.5	**0.67**	<0.01	<0.0076	6.88	**837**	**1360**	1130	8.8	1.69	surface	surface	surface
GH-Sump	324883	09/20/2010	Dry	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	surface	surface	surface
GH-Sump	326364	03/02/2011	Dry	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	surface	surface	surface
GH-Sump	327875	09/02/2011		126	0.0074	<0.006	0.049	0.87	<0.06	20.6	**1.02**	<0.01	<0.0075	6.65	378	626	838	24.5	1.07	surface	surface	surface
Lower GH-Sump Pond*		3/14/2006		NA	**0.701**	**0.284**	**20.2**	**5.34**	<0.06	NA	**116**	0.184	**0.16**	**4.88**	**3160**	**5100**	3293	13.1	**232**	surface	surface	surface
Lower GH-Sump Pond*	299169	2/6/2007		NA	**0.273**	**0.117**	**6.41**	**2.22**	<0.06	NA	**45**	0.073	**0.053**	**4.8**	**1870**	**2900**	2047	10.5	**72.6**	surface	surface	surface
GH-Lower Pond	322690	09/30/2009		85.3	<0.002	<0.006	0.017	0.991	<0.06	15.3	0.0159	<0.01	<0.0075	7.72	254	438	524	17.1	0.0108	surface	surface	surface
GH-Lower Pond	323314	03/10/2010		261	0.0048	0.0061	0.016	1.21	<0.061	49.7	**0.225**	<0.01	<0.0076	7.49	**849**	**1360**	1140	9.5	0.496	surface	surface	surface
GH-Lower Pond	324882	09/20/2010		151	<0.002	<0.006	0.013	0.847	<0.06	25.9	0.183	<0.01	<0.0075	8.58	430	740	874	23.5	0.0204	surface	surface	surface
GH-Lower Pond	326363	03/02/2011	Dry	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	surface	surface	surface
GH-Lower Pond	327874	09/02/2011		130	<0.002	<0.006	0.018	0.86	<0.06	20.7	0.119	<0.01	<0.0075	7.94	415	656	821	23.8	<0.01	surface	surface	surface
GH-Upper Pond	322692	09/30/2009	Pumped dry, mud puddle is all that's left. No water.	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	surface	surface	surface
GH-Upper Pond	323316	03/10/2010		306	**0.155**	**0.124**	**1.77**	0.636	<0.061	86.5	**38.9**	0.065	**0.296**	**5.24**	**1370**	**2090**	1712	13.9	**33.1**	surface	surface	surface
GH-Upper Pond	324884	09/20/2010	Pumped dry, mud puddle is all that's left. No water.	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	surface	surface	surface
GH-Upper Pond	326365	03/02/2011	Dry	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	surface	surface	surface
GH-Upper Pond	327876	09/02/2011	Reclaimed	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	surface	surface	surface

***Water in sump at this time was from the construction phase of the stockpile removal.**
****Well depth on record is incorrect.**
NS - Not sampled, sump and/or sump pond are dry.
NA - Not analysed.

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GH 526

Freeport McMoRan - Chino Mines
PO Box 10
Bayard, NM 88023

Project Name: Chino Routine
Work Order: **W110121**
Reported: 26-Sep-11 08:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID		Laboratory ID	Matrix	Date Sampled	Sampled By	Date Received
327872	GH-2004-2D	W110121-01	Water	02-Sep-11 11:00	KF	07-Sep-2011
327873	GH-2004-2S	W110121-02	Water	02-Sep-11 10:32	KF	07-Sep-2011
327874	GH-LOWER POND	W110121-03	Water	02-Sep-11 09:50	KF	07-Sep-2011
327875	GH-SUMP	W110121-04	Water	02-Sep-11 09:35	KF	07-Sep-2011

Solid samples are analyzed on an as-received, wet-weight basis, unless otherwise requested.
Sample preparation is defined by the client as per their Data Quality Objectives.
This report supercedes any previous reports for this Work Order. The complete report includes pages for each sample, a full QC report, and a notes section.
The results presented in this report relate only to the samples, and meet all requirements of the NELAC Standards unless otherwise noted.

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Freeport McMoRan - Chino Mines
PO Box 10
Bayard, NM 88023

Project Name: Chino Routine
Work Order: **W110121**
Reported: 26-Sep-11 08:30

Client Sample ID: **327872 : GH-2004-2D**
SVL Sample ID: **W110121-01 (Water)**

Sample Report Page 1 of 1

Sampled: 02-Sep-11 11:00
Received: 07-Sep-11
Sampled By: KF

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Dissolved)										
EPA 200.7	**Cadmium**	0.0098	mg/L	0.0020	0.0005		W137177	TJK	09/21/11 11:08	
EPA 200.7	**Calcium**	489	mg/L	0.040	0.012		W137177	TJK	09/21/11 13:54	
EPA 200.7	Cobalt	< 0.0060	mg/L	0.0060	0.0009		W137177	TJK	09/21/11 13:56	
EPA 200.7	**Copper**	0.010	mg/L	0.010	0.003		W137177	TJK	09/21/11 13:55	
EPA 200.7	Iron	< 0.060	mg/L	0.060	0.017		W137177	TJK	09/21/11 13:54	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0034		W137177	TJK	09/21/11 13:56	
EPA 200.7	**Magnesium**	113	mg/L	0.060	0.021		W137177	TJK	09/21/11 13:54	
EPA 200.7	**Manganese**	0.0474	mg/L	0.0040	0.0011		W137177	TJK	09/21/11 13:54	
EPA 200.7	Nickel	< 0.010	mg/L	0.010	0.003		W137177	TJK	09/21/11 13:56	
EPA 200.7	**Zinc**	0.782	mg/L	0.0100	0.0021		W137177	TJK	09/21/11 11:07	
Classical Chemistry Parameters										
SM 2540 C	**Total Diss. Solids**	2660	mg/L	40			W137165	RS	09/08/11 11:30	
Anions by Ion Chromatography										
EPA 300.0	Fluoride	< 0.10	mg/L	0.10	0.02		W138311	DT	09/22/11 11:28	
EPA 300.0	**Sulfate as SO4**	1640	mg/L	15.0	3.70	50	W138311	DT	09/21/11 18:03	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

John Kern
Laboratory Director

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Project Name: Chino Routine
Work Order: **W110121**
Reported: 26-Sep-11 08:30

Client Sample ID: **327873 : GH-2004-2S**
SVL Sample ID: **W110121-02 (Water)**

Sampled: 02-Sep-11 10:32
Received: 07-Sep-11
Sampled By: KF

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Dissolved)										
EPA 200.7	**Cadmium**	0.0748	mg/L	0.0020	0.0005		W137177	TJK	09/21/11 11:26	
EPA 200.7	**Calcium**	527	mg/L	0.040	0.012		W137177	TJK	09/21/11 14:10	
EPA 200.7	Cobalt	< 0.0060	mg/L	0.0060	0.0009		W137177	TJK	09/21/11 14:12	
EPA 200.7	**Copper**	0.032	mg/L	0.010	0.003		W137177	TJK	09/21/11 14:12	
EPA 200.7	Iron	< 0.060	mg/L	0.060	0.017		W137177	TJK	09/21/11 14:11	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0034		W137177	TJK	09/21/11 14:12	
EPA 200.7	**Magnesium**	167	mg/L	0.060	0.021		W137177	TJK	09/21/11 14:11	
EPA 200.7	**Manganese**	1.13	mg/L	0.0040	0.0011		W137177	TJK	09/21/11 14:11	
EPA 200.7	**Nickel**	0.016	mg/L	0.010	0.003		W137177	TJK	09/21/11 14:12	
EPA 200.7	**Zinc**	18.0	mg/L	0.0100	0.0021		W137177	TJK	09/21/11 11:26	
Classical Chemistry Parameters										
SM 2540 C	**Total Diss. Solids**	3380	mg/L	40			W137165	RS	09/08/11 11:30	
Anions by Ion Chromatography										
EPA 300.0	Fluoride	< 0.50	mg/L	0.50	0.10	5	W138311	DT	09/21/11 18:13	D1
EPA 300.0	**Sulfate as SO4**	2150	mg/L	15.0	3.70	50	W138311	DT	09/21/11 18:23	D2

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Project Name: Chino Routine
Work Order: **W110121**
Reported: 26-Sep-11 08:30

Client Sample ID: **327874 : GH-LOWER POND**
SVL Sample ID: **W110121-03 (Water)**

Sample Report Page 1 of 1

Sampled: 02-Sep-11 09:50
Received: 07-Sep-11
Sampled By: KF

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Dissolved)										
EPA 200.7	Cadmium	< 0.0020	mg/L	0.0020	0.0005		W137177	TJK	09/21/11 11:32	
EPA 200.7	**Calcium**	130	mg/L	0.040	0.012		W137177	TJK	09/21/11 14:16	
EPA 200.7	Cobalt	< 0.0060	mg/L	0.0060	0.0009		W137177	TJK	09/21/11 14:18	
EPA 200.7	**Copper**	0.018	mg/L	0.010	0.003		W137177	TJK	09/21/11 14:18	
EPA 200.7	Iron	< 0.060	mg/L	0.060	0.017		W137177	TJK	09/21/11 14:16	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0034		W137177	TJK	09/21/11 14:18	
EPA 200.7	**Magnesium**	20.7	mg/L	0.060	0.021		W137177	TJK	09/21/11 14:16	
EPA 200.7	**Manganese**	0.119	mg/L	0.0040	0.0011		W137177	TJK	09/21/11 14:16	
EPA 200.7	Nickel	< 0.010	mg/L	0.010	0.003		W137177	TJK	09/21/11 14:18	
EPA 200.7	Zinc	< 0.0100	mg/L	0.0100	0.0021		W137177	TJK	09/21/11 11:32	
Classical Chemistry Parameters										
SM 2540 C	**Total Diss. Solids**	656	mg/L	10			W137165	RS	09/08/11 11:30	
Anions by Ion Chromatography										
EPA 300.0	**Fluoride**	0.86	mg/L	0.10	0.02		W138311	DT	09/21/11 18:33	
EPA 300.0	**Sulfate as SO4**	415	mg/L	3.00	0.74	10	W138311	DT	09/21/11 18:43	D2

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Project Name: Chino Routine
Work Order: **W110121**
Reported: 26-Sep-11 08:30

Client Sample ID: **327875 : GH-SUMP**
SVL Sample ID: **W110121-04 (Water)**

Sampled: 02-Sep-11 09:35
Received: 07-Sep-11
Sampled By: KF

Sample Report Page 1 of 1

Method	Analyte	Result	Units	RL	MDL	Dilution	Batch	Analyst	Analyzed	Notes
Metals (Dissolved)										
EPA 200.7	**Cadmium**	0.0074	mg/L	0.0020	0.0005		W137177	TJK	09/21/11 11:38	
EPA 200.7	**Calcium**	126	mg/L	0.040	0.012		W137177	TJK	09/21/11 14:22	
EPA 200.7	Cobalt	< 0.0060	mg/L	0.0060	0.0009		W137177	TJK	09/21/11 14:23	
EPA 200.7	**Copper**	0.049	mg/L	0.010	0.003		W137177	TJK	09/21/11 14:23	
EPA 200.7	Iron	< 0.060	mg/L	0.060	0.017		W137177	TJK	09/21/11 14:22	
EPA 200.7	Lead	< 0.0075	mg/L	0.0075	0.0034		W137177	TJK	09/21/11 14:23	
EPA 200.7	**Magnesium**	20.6	mg/L	0.060	0.021		W137177	TJK	09/21/11 14:22	
EPA 200.7	**Manganese**	1.02	mg/L	0.0040	0.0011		W137177	TJK	09/21/11 14:22	
EPA 200.7	Nickel	< 0.010	mg/L	0.010	0.003		W137177	TJK	09/21/11 14:23	
EPA 200.7	**Zinc**	1.07	mg/L	0.0100	0.0021		W137177	TJK	09/21/11 11:38	
Classical Chemistry Parameters										
SM 2540 C	**Total Diss. Solids**	626	mg/L	10			W137165	RS	09/08/11 11:30	
Anions by Ion Chromatography										
EPA 300.0	**Fluoride**	0.87	mg/L	0.10	0.02		W138311	DT	09/20/11 20:12	
EPA 300.0	**Sulfate as SO4**	378	mg/L	3.00	0.74	10	W138311	DT	09/20/11 20:22	D2

This data has been reviewed for accuracy and has been authorized for release by the Laboratory Director or designee.

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Project Name: Chino Routine
Work Order: **W110121**
Reported: 26-Sep-11 08:30

Quality Control - BLANK Data

Method	Analyte	Units	Result	MDL	MRL	Batch ID	Analyzed	Notes
Metals (Dissolved)								
EPA 200.7	Cadmium	mg/L	<0.0020	0.0005	0.0020	W137177	21-Sep-11	
EPA 200.7	Calcium	mg/L	<0.040	0.012	0.040	W137177	21-Sep-11	
EPA 200.7	Cobalt	mg/L	<0.0060	0.0009	0.0060	W137177	21-Sep-11	
EPA 200.7	Copper	mg/L	<0.010	0.003	0.010	W137177	21-Sep-11	
EPA 200.7	Iron	mg/L	<0.060	0.017	0.060	W137177	21-Sep-11	
EPA 200.7	Lead	mg/L	<0.0075	0.0034	0.0075	W137177	21-Sep-11	
EPA 200.7	Magnesium	mg/L	<0.060	0.021	0.060	W137177	21-Sep-11	
EPA 200.7	Manganese	mg/L	<0.0040	0.0011	0.0040	W137177	21-Sep-11	
EPA 200.7	Nickel	mg/L	<0.010	0.003	0.010	W137177	21-Sep-11	
EPA 200.7	Zinc	mg/L	<0.0100	0.0021	0.0100	W137177	21-Sep-11	
Classical Chemistry Parameters								
SM 2540 C	Total Diss. Solids	mg/L	<10		10	W137165	08-Sep-11	
Anions by Ion Chromatography								
EPA 300.0	Fluoride	mg/L	<0.10	0.02	0.10	W138311	20-Sep-11	
EPA 300.0	Sulfate as SO4	mg/L	<0.30	0.07	0.30	W138311	20-Sep-11	

Quality Control - LABORATORY CONTROL SAMPLE Data

Method	Analyte	Units	LCS Result	LCS True	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Metals (Dissolved)									
EPA 200.7	Cadmium	mg/L	0.987	1.00	98.7	85 - 115	W137177	21-Sep-11	
EPA 200.7	Calcium	mg/L	18.0	20.0	90.0	85 - 115	W137177	21-Sep-11	
EPA 200.7	Cobalt	mg/L	0.888	1.00	88.8	85 - 115	W137177	21-Sep-11	
EPA 200.7	Copper	mg/L	0.895	1.00	89.5	85 - 115	W137177	21-Sep-11	
EPA 200.7	Iron	mg/L	9.22	10.0	92.2	85 - 115	W137177	21-Sep-11	
EPA 200.7	Lead	mg/L	0.913	1.00	91.3	85 - 115	W137177	21-Sep-11	
EPA 200.7	Magnesium	mg/L	18.5	20.0	92.5	85 - 115	W137177	21-Sep-11	
EPA 200.7	Manganese	mg/L	0.938	1.00	93.8	85 - 115	W137177	21-Sep-11	
EPA 200.7	Nickel	mg/L	0.874	1.00	87.4	85 - 115	W137177	21-Sep-11	
EPA 200.7	Zinc	mg/L	0.963	1.00	96.3	85 - 115	W137177	21-Sep-11	
Anions by Ion Chromatography									
EPA 300.0	Fluoride	mg/L	1.88	2.00	94.1	90 - 110	W138311	20-Sep-11	
EPA 300.0	Sulfate as SO4	mg/L	9.92	10.0	99.2	90 - 110	W138311	20-Sep-11	

Quality Control - DUPLICATE Data

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
Metals (Dissolved)									
EPA 200.7	Cadmium	mg/L	0.0097	0.0098	1.1	20	W137177	21-Sep-11	
EPA 200.7	Calcium	mg/L	487	489	0.4	20	W137177	21-Sep-11	
EPA 200.7	Cobalt	mg/L	<0.0060	<0.0060	UDL	20	W137177	21-Sep-11	
EPA 200.7	Copper	mg/L	<0.010	0.010	<RL	20	W137177	21-Sep-11	
EPA 200.7	Iron	mg/L	<0.060	<0.060	UDL	20	W137177	21-Sep-11	
EPA 200.7	Lead	mg/L	<0.0075	<0.0075	UDL	20	W137177	21-Sep-11	
EPA 200.7	Magnesium	mg/L	114	113	0.8	20	W137177	21-Sep-11	
EPA 200.7	Manganese	mg/L	0.0475	0.0474	0.0	20	W137177	21-Sep-11	
EPA 200.7	Nickel	mg/L	<0.010	<0.010	<RL	20	W137177	21-Sep-11	
EPA 200.7	Zinc	mg/L	0.766	0.782	2.0	20	W137177	21-Sep-11	

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Freeport McMoRan - Chino Mines
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Project Name: Chino Routine
Work Order: **W110121**
Reported: 26-Sep-11 08:30

Quality Control - DUPLICATE Data (Continued)

Method	Analyte	Units	Duplicate Result	Sample Result	RPD	RPD Limit	Batch ID	Analyzed	Notes
Classical Chemistry Parameters									
SM 2540 C	Total Diss. Solids	mg/L	1530	1540	0.5	10	W137165	08-Sep-11	
Anions by Ion Chromatography									
EPA 300.0	Fluoride	mg/L	<1.00	<1.00	UDL	20	W138311	20-Sep-11	D1
EPA 300.0	Sulfate as SO4	mg/L	1950	1930	1.0	20	W138311	20-Sep-11	D2

Quality Control - MATRIX SPIKE Data

Method	Analyte	Units	Spike Result	Sample Result (R)	Spike Level (S)	% Rec.	Acceptance Limits	Batch ID	Analyzed	Notes
Metals (Dissolved)										
EPA 200.7	Cadmium	mg/L	0.929	0.0098	1.00	91.9	70 - 130	W137177	21-Sep-11	
EPA 200.7	Cadmium	mg/L	1.01	<0.0020	1.00	101	70 - 130	W137177	21-Sep-11	
EPA 200.7	Calcium	mg/L	503	489	20.0	71.8	70 - 130	W137177	21-Sep-11	M3
EPA 200.7	Calcium	mg/L	65.1	46.2	20.0	94.5	70 - 130	W137177	21-Sep-11	
EPA 200.7	Cobalt	mg/L	0.880	<0.0060	1.00	88.0	70 - 130	W137177	21-Sep-11	
EPA 200.7	Cobalt	mg/L	0.945	<0.0060	1.00	94.5	70 - 130	W137177	21-Sep-11	
EPA 200.7	Copper	mg/L	0.967	0.010	1.00	95.7	70 - 130	W137177	21-Sep-11	
EPA 200.7	Copper	mg/L	0.962	<0.010	1.00	95.8	70 - 130	W137177	21-Sep-11	
EPA 200.7	Iron	mg/L	9.27	<0.060	10.0	92.7	70 - 130	W137177	21-Sep-11	
EPA 200.7	Iron	mg/L	10.0	<0.060	10.0	100	70 - 130	W137177	21-Sep-11	
EPA 200.7	Lead	mg/L	0.905	<0.0075	1.00	90.1	70 - 130	W137177	21-Sep-11	
EPA 200.7	Lead	mg/L	0.983	<0.0075	1.00	98.3	70 - 130	W137177	21-Sep-11	
EPA 200.7	Magnesium	mg/L	133	113	20.0	101	70 - 130	W137177	21-Sep-11	
EPA 200.7	Magnesium	mg/L	32.6	13.0	20.0	98.3	70 - 130	W137177	21-Sep-11	
EPA 200.7	Manganese	mg/L	0.990	0.0474	1.00	94.3	70 - 130	W137177	21-Sep-11	
EPA 200.7	Manganese	mg/L	1.01	<0.0040	1.00	101	70 - 130	W137177	21-Sep-11	
EPA 200.7	Nickel	mg/L	0.922	<0.010	1.00	91.9	70 - 130	W137177	21-Sep-11	
EPA 200.7	Nickel	mg/L	0.966	<0.010	1.00	96.1	70 - 130	W137177	21-Sep-11	
EPA 200.7	Zinc	mg/L	1.66	0.782	1.00	87.4	70 - 130	W137177	21-Sep-11	
EPA 200.7	Zinc	mg/L	0.994	<0.0100	1.00	99.4	70 - 130	W137177	21-Sep-11	
Anions by Ion Chromatography										
EPA 300.0	Fluoride	mg/L	2.25	<1.00	2.00	113	90 - 110	W138311	20-Sep-11	D1
EPA 300.0	Fluoride	mg/L	2.76	0.86	2.00	95.0	90 - 110	W138311	20-Sep-11	
EPA 300.0	Sulfate as SO4	mg/L	1930	1930	10.0	R > 4S	90 - 110	W138311	20-Sep-11	D2,M3
EPA 300.0	Sulfate as SO4	mg/L	404	415	10.0	R > 4S	90 - 110	W138311	20-Sep-11	D2,M3

One Government Gulch - PO Box 929 Kellogg ID 83837-0929 (208) 784-1258 Fax (208) 783-0891

Freeport McMoRan - Chino Mines
PO Box 10
Bayard, NM 88023

Project Name: Chino Routine
Work Order: **W110121**
Reported: 26-Sep-11 08:30

Notes and Definitions

D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of target analyte.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The LCS was acceptable.
LCS	Laboratory Control Sample (Blank Spike)
RPD	Relative Percent Difference
UDL	A result is less than the detection limit
R > 4S	% recovery not applicable, sample concentration more than four times greater than spike level
<RL	A result is less than the reporting limit
MRL	Method Reporting Limit
MDL	Method Detection Limit
N/A	Not Applicable

CHINO EROSION/RECLAMATION INSPECTION FORM (Quarterly) Monthly

Reclamation Unit: Groundhog Mine Site	Weather Conditions: Windy, Cold, Storming
Inspector: Cody Clifton Cafe Cly	
Time/Date: 1:15 12-29-10	

Vegetation Conditions:

dry and in winter Condition

Ditches/Water Control:

ditches and water Control are in good Condition

Monitoring Stations:

N/A

Other Observations:

None

CHINO EROSION/RECLAMATION INSPECTION FORM (Quarterly) Monthly

Reclamation Unit: Oscella

Inspector: Cody Clifton

Time/Date: 1:50 12-09-10

Weather Conditions: Windy, Cold, Stormy

Vegetation Conditions:

~~Vegetation~~

Vegetation is good and in this area, it's just in winter Condition.

Ditches/Water Control:

ditches look good, berms may need work in case of some prec.

Monitoring Stations:

N/A

Other Observations:

Top soil not very good in [redacted] part of this area. (see map)

CHINO EROSION/RECLAMATION INSPECTION FORM (Quarterly) Monthly

Reclamation Unit: C B Ball	Weather Conditions: Windy, Cold, Storming
Inspector: Cody Clifton Calf Clip	
Time/Date: 2:10 12-29-10	

Vegetation Conditions:

Vegetation is fair, in winter Condition.

Ditches/Water Control:

Ditch Coming into the water hole appears to be in good condition.

Monitoring Stations:

N/A

Other Observations:

Some top soil appears to have been borrowed in and around water hole.

CHINO EROSION/RECLAMATION INSPECTION FORM (Quarterly) Monthly

Reclamation Unit: Tenderfoot	Weather Conditions: Windy, Cold, Stormy
Inspector: Cody Clifton	
Time/Date: 1:35 12-29-10	

Vegetation Conditions:

There is good vegitation in this area, it's just in winter Condition

Ditches/Water Control:

ditch look to be in good condition.

Monitoring Stations:

N/A

Other Observations:

there is a plastic liner in ditch. (see map)

~~there~~

CHINO EROSION/RECLAMATION INSPECTION FORM (Quarterly) Monthly

Reclamation Unit: Groundhog Mine Site	**Weather Conditions:** Sunny & Windy
Inspector: Pam Pinson	
Time/Date: 3-31-2011 11:00 am	

Vegetation Conditions:

Same as Decembers inspection. Ghog pipeline corridor needs reseeded and mulched

Ditches/Water Control:

Good Condition

Monitoring Stations:

N/A

Other Observations:

None.

CHINO EROSION/RECLAMATION INSPECTION FORM Quarterly Monthly

Reclamation Unit: Tenderfoot, Osceola, CB Bell	**Weather Conditions:** Sunny, Windy
Inspector: Pam Pinson	
Time/Date: 3-31-11 10:15 a.m.	

Vegetation Conditions:

Same as December 10 inspection. Still in winter condition.

Ditches/Water Control:

Good condition

Monitoring Stations:

NA

Other Observations:

None

CHINO EROSION/RECLAMATION INSPECTION FORM Quarterly Monthly

Reclamation Unit: Tenderfoot, RBBall, Oscoola

Inspector: Pam Pinson

Time/Date: 6-30-2011 4:20pm

Weather Conditions: Overcast to Sunny

Vegetation Conditions:

No changes since 1st Qtr inspection
Dry vegetation.

Ditches/Water Control:

Nothing to report

Monitoring Stations:

NA

Other Observations:

None.

CHINO EROSION/RECLAMATION INSPECTION FORM Quarterly Monthly

Reclamation Unit: Groundhog Mine Site	Weather Conditions: Overcast to sunny
Inspector: Pam Pinson	Need Rain !
Time/Date: 6-30-2011 4:30pm	

Vegetation Conditions: Good cover but dry. Not much growth yet. Pipeline corridor seeded & mulched in May. Just need a lot of rain.

Ditches/Water Control: Upper Pond removed Dry

Monitoring Stations: NA

Other Observations: ~~NA~~ None

CHINO EROSION/RECLAMATION INSPECTION FORM Quarterly Monthly

Reclamation Unit: Tenderfoot > Star > CB Bell > Osceola	**Weather Conditions:** Sunny Warm Clouds moving in.
Inspector: Pam Ponsonby/NMED & Golder	
Time/Date: 9-26-2011 2:00	

Vegetation Conditions:

See Golder Inspection Report 2011!

Bell & Osceola - Drought effects on vegetation.

Ditches/Water Control:

Tenderfoot - raveling at top of hill at old road area.

Monitoring Stations:

NA

Other Observations:

CHINO EROSION/RECLAMATION INSPECTION FORM (Quarterly) (Annual) Monthly

Reclamation Unit: Groundhog Mine Site DRA

Inspector: Pam Preisner w/ Golder & NMED

Time/Date: 9-26-2011 1:15 pm

Weather Conditions: Sunny, Warm Clouds moving in.

Vegetation Conditions:

See Golder annual Ghog Inspection Report 2011

Still lush in old growth sites

Ditches/Water Control: See Golder Report 2011

Erosion on southend of pipeline corridor

Monitoring Stations:

N/A

Other Observations:

Lower Pond high. Check pump.